

IN THE CLAIMS:

32. (Currently amended) An intumescing material comprising a phyllosilicate intercalation compound with an increased volume of expansion and/or a modified onset temperature obtained by intercalating at least one intercalate compound selected from the group consisting of lithium citrate, lithium formate formiate lithium acetate, sodium formate formiate, sodium acetate, sodium oxalate, sodium gluconate, sodium methylate, sodium ethylate, sodium propylate, potassium formate, potassium acetate, potassium gluconate, potassium oxalate, ethylene diamine tetraacetic acid dipotassium salt, alcoholates of lithium or potassium with methanol, ethanol, 2-propanol, 2-butanol, tert.-butanol, benzyl alcohol, 1-decanol, ethylene glycol, 1,3-propane diol, 1,4-butane diol and glycerol, by cation exchange in native, expandable intumescent vermiculite, hydrobiotite and/or chlorite-vermiculite having with a mean particle diameter of 0.1 mm to 10 mm as phyllosilicate a layered silicate in a solution of said intercalate compound; separating the phyllosilicate layered silicate intercalation compound formed from the suspension; and optionally washing; and drying; the layered silicate for use as intumescing, fire-retarding additive and/or in expanded form as additive for producing flame-retarding materials for the manufacture of flame proof materials.

33. (Currently amended) The intumescing material according to claim 32, wherein the phyllosilicate layered silicate intercalation compound comprises expandable contains intumescent vermiculite, hydrobiotite and/or chlorite-vermiculite having a mean particle diameter of 0.33 mm to 1.0 mm.

34. (Currently amended) The intumescing material according to claim 32, wherein the phyllosilicate layered silicate intercalation compound is produced using water, an aliphatic or aromatic alcohol, an ether, an ester, an alkane, a cycloalkane, an aromatic solvent and/or an amine as a solvent.

35. (Currently amended) The intumescing material according to claim 32, wherein the phyllosilicate layered silicate intercalation compound is produced using the intercalate compound in a concentration of 0.01 mol to 5.0 mol/1 in the solution.

36. (Previously presented) The intumescing material according to claim 35, wherein the concentration of the intercalate compound is 0.1 mol/1 to 1.0 mol/1 in the solution.

37. (Currently amended) The intumescing material according to claim 32, wherein the phylosilicate layered silicate intercalation compound has been produced at a temperature of the intercalation reaction of 10°C to 150°C.

38. (Currently amended) The intumescing material according to claim 37, wherein the phylosilicate layered silicate intercalation compound is produced at an intercalation temperature of 25°C to 60°C.

39. (Currently amended) The intumescing material according to claim 32, wherein the tie of the layered silicate intercalation compound has been produced with an intercalation reaction time of is 65 0.5 to 144 hours.

40. (Currently amended) The intumescing material according to claim 32, wherein the layered silicate intercalation compound has been produced with a reaction time for the intercalation reaction is of 10 to 36 hours.

41. (Currently amended) The intumescing material according to claim 32, wherein the phylosilicate layered silicate intercalation compound is separated from the suspension by filtration or decanting from the suspension, optionally followed by solvent washing and drying.

42. (Currently amended) The intumescing material according to claim 32, wherein the drying is carried out at room temperature ~~at~~ in a vacuum or in a drying cabinet at elevated temperature.

43. (Previously presented) The intumescing material according to claim 42, wherein the drying is carried out in a drying cabinet at 60°C to 80°C for 1 hour to 12 hours.